NEVADA DIVISION OF WATER RESOURCES
ENGINEERING REVIEW OF DAMS:
DESIGN, PLANS, AND SPECIFICATIONS

I. GENERAL PLAN

____ VICINITY/LOCATION MAP
____ PLAN VIEW OF WATERSHED BOUNDARY AND DOWNSTREAM HAZARD
____ DRAINAGE BASIN AREA _____
____ TOPOGRAPHY MAP
____ PLAN VIEW OF DAM AND RESERVOIR AREA
____ RESERVOIR STORAGE CAPACITY _____
____ SURVEY TIE TO AND FROM SECTION CORNER
____ CROSS SECTION OF EMBANKMENT, AXIS AND MAXIMUM SECTION

- ____ ELEVATIONS OF DAM CREST AND EMERGENCY SPILLWAY CREST
- ____ ELEVATIONS OF MAXIMUM WATER LEVEL IN RESERVOIR
- ____ ELEVATION OF MAXIMUM FLOW LINE IN CHANNEL
- ____ LOCATION AND DIMENSIONS OF CORE
- ____ SLOPES OF UPSTREAM AND DOWNSTREAM FACES
- ____ DETAILS OF EROSION PROTECTION
- ____ DIMENSIONS AND LOCATIONS OF PERVIOUS, SEMI-PERVIOUS, AND IMPERVIOUS MATERIALS
- ____ DIMENSIONS AND LOCATIONS OF DRAINAGE FACILITIES, INCLUDING FILTERS

____ RESERVOIR AREA/CAPACITY CURVE
____ DISCHARGE CURVE FOR OUTLET/SPILLWAY

II. DETAILS AND SECTIONS

____ SPILLWAY PLAN VIEW AND CROSS SECTION
____ OUTLET PIPE PLAN VIEW AND CROSS SECTION
____ INLET

- ____ STRUCTURAL
- ____ TRASH RACK
- ____ GATE STEM
- ____ VENT PIPE
- ____ EROSION PROTECTION

____ OUTLET ELEVATIONS AND GRADES
____ IMPACT BASIN POSITIONS AND CONSTRUCTION DETAILS
____ VALVE/GATE
____ TOE DRAIN
____ PIEZOMETERS
____ CUT OFF COLLARS, SPACING DIMENSIONS, CONSTRUCTION DETAILS

III. BASIS OF DESIGN

A. HYDROLOGY

____ DRAINAGE AREA DESCRIBED
____ STORM RECURRENCE INTERVAL USED FOR DESIGN _____
____ RUNOFF CALCULATION METHOD USED _____
____ FLOOD ROUTING METHOD USED _____
____ FREEBOARD _____ FT.

B. FOUNDATION

____ GEOTECHNICAL REPORT

- ____ SURFACE CONDITIONS
- ____ SHEAR STRENGTH
- ____ PERMEABILITY
- ____ GRAIN SIZE DISTRIBUTION AND CLASSIFICATION
- ____ POSSIBLE GEOLOGICAL HAZARDS

____ BORINGS/TEST PIT LOGS

- ____ LOCATIONS ON PLANS
- ____ TOTAL DEPTH
- ____ STRATIGRAPHY WITH ELEVATIONS OF DIFFERENT FORMATIONS

____ SEEPAGE ANALYSIS
____ STRENGTH OF MATERIALS PROPOSED FOR USE AS FOUNDATION
____ DEPTH TO GROUNDWATER

____ AVAILABILITY OF MATERIALS
____ SOIL PROPERTIES
- ____ SHEAR STRENGTH TESTS, MAX. ALLOWABLE SHEAR STRESS
  ____ PSI
- ____ PARTICLE SIZE DISTRIBUTION AND CLASSIFICATION
- ____ CORE
- ____ DRAINS
- ____ FILTERS
- ____ SHELL
- ____ SLOPE STABILITY/EROSION PROTECTION
- ____ DENSITY CURVE METHOD _____

____ SLOPES AND/OR SLOPE STABILITY (STATIC, PSEUDO-STATIC)

- ____ FACTORS OF SAFETY

IV. SPECIFICATIONS

____ CLEARING AND GRUBBING CONSTRUCTION AREA
____ STRIPPING UNSUITABLE MATERIAL
____ FOUNDATION PREPARATION/COMPACTION REQUIREMENTS
____ EMBANKMENT MATERIALS
____ PLACEMENT OF EMBANKMENT MATERIALS
____ COMPACTION OF EMBANKMENT MATERIALS
____ FILTER AND DRAINAGE MATERIALS
____ CONCRETE
____ MATERIALS TESTING REQUIREMENTS
____ EROSION PROTECTION

- ____ SOIL CEMENT
- ____ RIP RAP
- ____ OTHER

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